

Tripp Lite Series UPS Systems 36W Power Supply

Advanced User's Guide



BC36ML

Safety Instructions

SAVE THESE INSTRUCTIONS.

This manual contains important instructions **that should be followed during installation and maintenance of the UPS and batteries.**

FCC Notice:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate RF energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Suppliers Declaration of Conformity

Unique Identifier: EATON, BC36ML

Responsible Party:

EATON
10000 Woodward Ave
Woodridge, IL 60517 USA
773-869-1111

tripplite.eaton.com

FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Innovation, Science and Economic Development Canada Notice

This Class B digital device apparatus complies with Canadian ICES-003.

CAN-ICES-003(B) / NMB-003(B)

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Special Symbols

The following are examples of symbols used on the product to alert you to important information:



Danger: Dangerous voltage levels are present within the UPS. The UPS has an internal power source (the battery). Consequently, the power outlets may be energized even if the UPS is disconnected from the AC power source.



Important instructions that must always be followed.

CAUTION: Batteries present a risk of energy or electric shock or burn from high short circuit currents. Observe proper precautions. Batteries may contain HIGH VOLTAGE and CORROSIVE, TOXIC, and EXPLOSIVE substances. Do not dispose of batteries in a fire, as they may explode.



This symbol indicates that you should not discard the UPS or the UPS batteries in the trash. This product contains sealed, Lithium-ion batteries and must be disposed of properly. For more information, contact your local recycling/reuse or hazardous waste center.



This symbol indicates that you should not discard waste electrical or electronic equipment (WEEE) in the trash. For proper disposal, contact your local recycling/reuse or hazardous waste center for more information.

Battery Warning Instructions

- Do not dispose of batteries in a fire. When exposed to flame, batteries may explode. Do not open or mutilate the battery or batteries. Released electrolyte is harmful to the skin and eyes and may be extremely toxic.

Product Safety

- There are no user-serviceable parts inside the UPS.
- Changes or modifications not expressly approved by the party responsible for compliance can void the user's authority to operate the equipment.
- Dangerous voltage levels are present within the UPS. Do not attempt to open the unit.
- Check that the indications on the rating plate correspond to your AC-powered system and to the actual electrical consumption of all the equipment to be connected to the system.
- This type B uninterruptible power equipment with the battery already installed by the supplier can be operated and installed by the end user.
- For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible.
- Connection to any other type of receptacle other than a two-pole, three-wire grounded receptacle may result in shock hazards as well as violate local electrical codes.
- Never install the system near liquids or in an excessively damp environment. This equipment should only be used in a dry, indoor environment.
- During the installation of this equipment, it should be assumed that the sum of the leakage currents of the UPS and the connected loads does not exceed 3.5 mA.
- This unit is intended for installation in a controlled environment (temperature-controlled, indoor area free of conductive contaminants). Avoid installing the UPS in locations with standing or running water or excessive humidity.
- Connection to any other type of receptacle other than a two-pole, three-wire grounded receptacle may result in shock hazards as well as violate local electrical codes.

- Ensure that the system is free of any contaminants, the surrounding area is free of debris, and there are no foreign substances within the system.
- In the event of an emergency, press the "OFF" button and disconnect the power cord from the AC power supply to properly disable the UPS.
- Never block the cooling vents of the system.
- Do not allow any liquids to enter the UPS. Do not place beverages or any other liquid-containing vessels on or near the unit.
- Never expose the system to direct sunlight or to a heat source.
- Store the system in a dry place before installing, if storage is required.
- Do not plug the UPS input into its own output.
- Do not attach a power strip or surge suppressor to the UPS.
- Do not attach non-computer-related items, such as medical equipment, life-support equipment, microwave ovens, or vacuum cleaners, to a UPS.
- Unplug the UPS prior to cleaning, and do not use liquid or spray detergent.
- To reduce the risk of overheating the UPS, do not cover the unit's cooling vents and avoid exposing the UPS to direct sunlight or installing the unit near heat-emitting appliances such as space heaters or furnaces.

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Chapter 1 Installation

1.1 Introduction

Thank you for selecting an Eaton Tripp Lite Series product to protect your equipment.

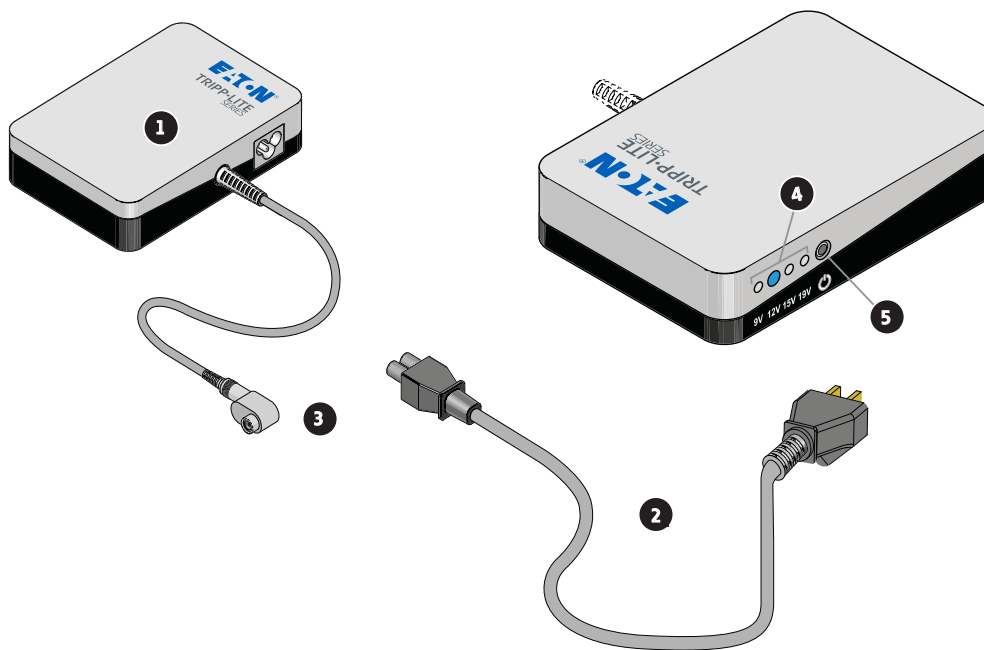
The Eaton Tripp Lite Series range has been designed with the utmost care. Before installing your Eaton Tripp Lite Series UPS system please read the information and safety instructions provided to take full advantage of the many features of your UPS (Uninterruptible Power System).

To discover the entire range of Eaton Tripp Lite Series products, we invite you to visit our web site at tripplite.eaton.com or contact your Eaton representative.

The Eaton Tripp Lite Series 36W Power Supply Uninterruptible Power System (UPS) is designed for small electrical equipment such as, but not limited to, Internet gateways, switches or routers, IP cameras etc. It protects your critical equipment from power failures and power surges. Battery backup support allows you to work through short power failures and gives you enough time to shut down your equipment in case of a prolonged blackout.

1.2 UPS Overview

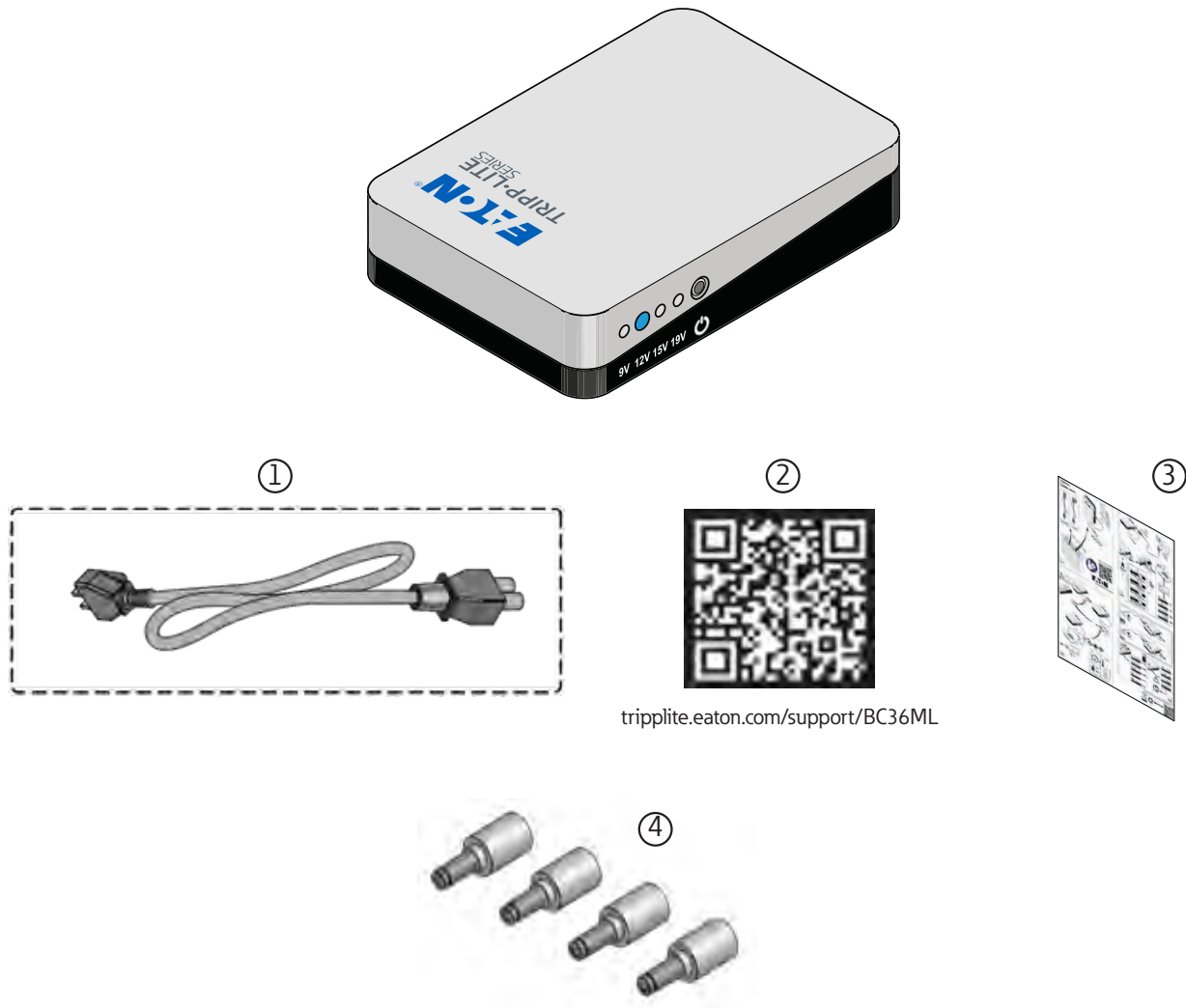
Figure 1. Product Overview



①	36W Power Supply (plastic casing)
②	Removable AC input cord (NEMA 5-15P)
③	Attached DC output cord
④	4x green LED: Voltage (Chapter 4.5), battery level (Chapter 5.2) and abnormal situations (Chapter 6)
⑤	ON/OFF button, battery level display and voltage selector

1.3 Package Contents

Figure 2. Package Contents



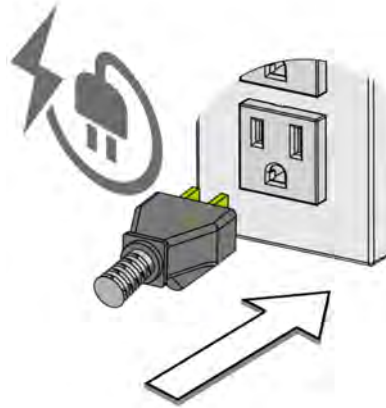
①	NEMA 5–15P input line cord quantity 1
②	QR code to product website.
③	Quick Start Guide / Safety information
④	Supplied barrel connectors quantity 4
NOTE Extended replacement barrel adapter kits can be ordered through customer service.	

1.4 Connecting the Power Supply Cord

Attach the supplied NEMA 5–15P line cord to the UPS input socket on the back of the UPS, then plug the NEMA 5–15P into a three-wire grounded NEMA 5–15 receptacle.

**NOTE**

Initial power-on requires that the UPS is plugged to mains input first.

Figure 3. Connecting the UPS to the Power Source**1.5 Connecting the Load Equipment**

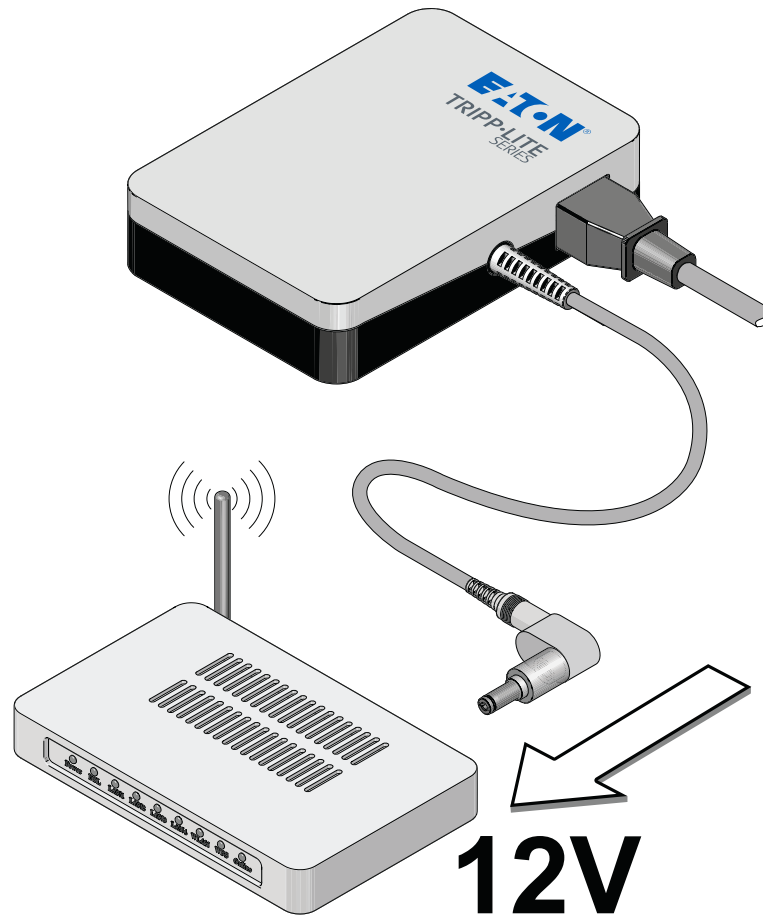
To connect the load equipment to the UPS:

1. Select the correct barrel adapter and clip it on the UPS output connector.

Figure 4. Barrel Adapter Attachment

2. Plug in the load equipment.

Figure 5. Load Equipment Attachment



3. The load equipment is now ready to be backed-up and protected. See [2.1 Powering the UPS ON](#).

Chapter 2 Operation

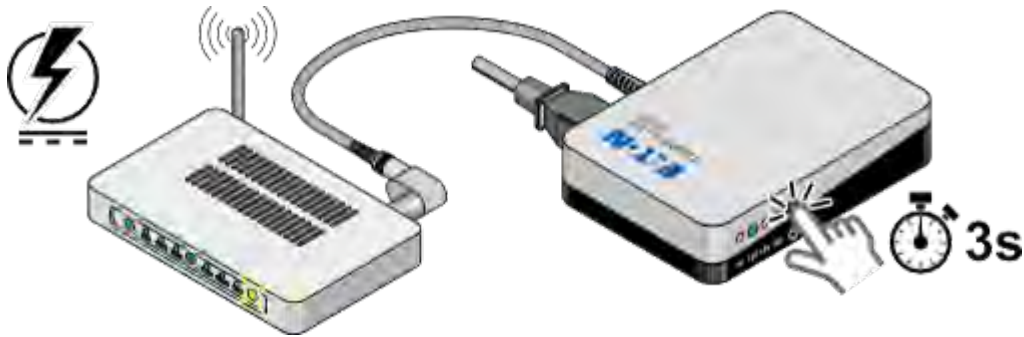
2.1 Powering the UPS ON

CAUTION

Do not connect load until the voltage has been appropriately setup.

Press the ON/OFF button for three seconds. The battery level is displayed for five seconds, followed by the LED that indicates the output voltage level (default 12V).

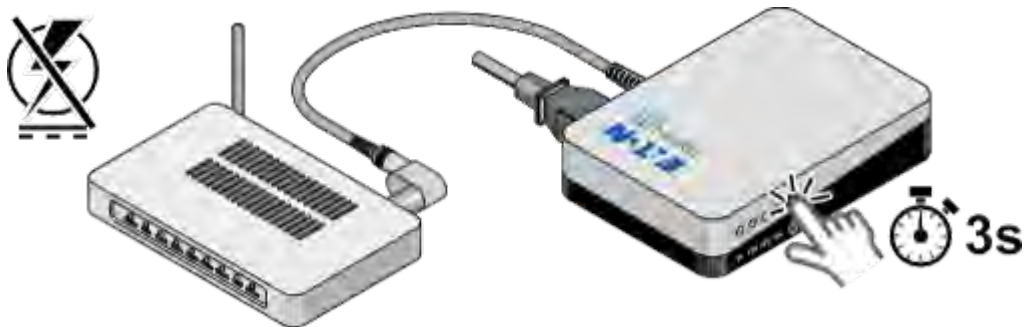
Figure 6. Power ON Sequence



2.2 Powering the UPS OFF

To power the UPS OFF press and hold the ON/OFF button for three seconds. The lights on the UPS will turn off and no output will be available to the load equipment.

Figure 7. Power OFF Sequence



2.3 Displaying the Battery Level

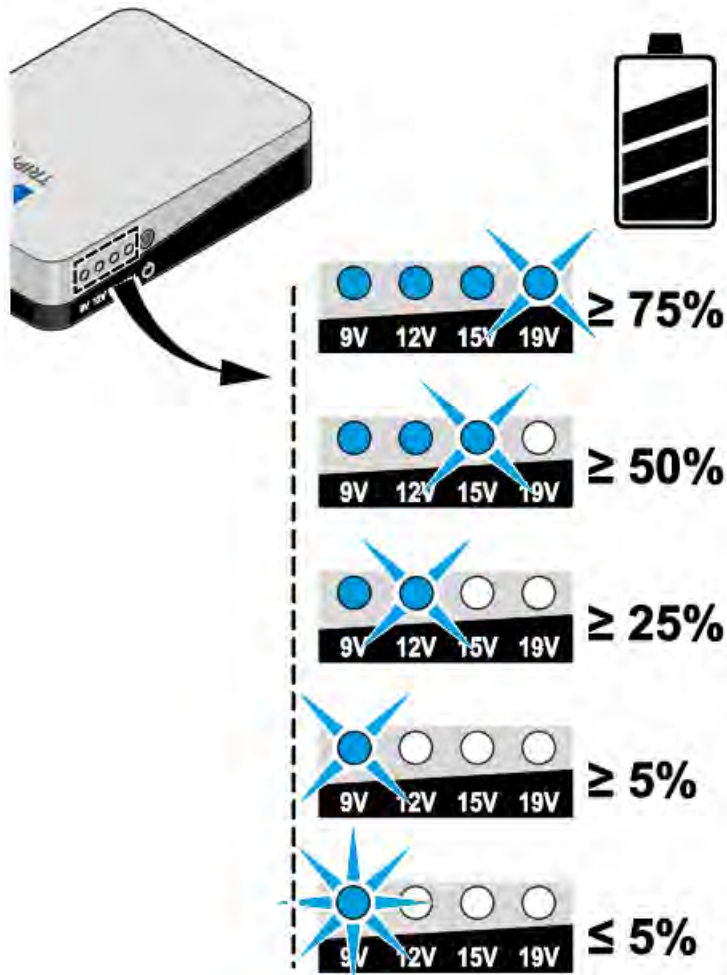
Battery Levels



To display the battery level of the UPS press the ON/OFF button once, the battery level will be displayed for five seconds and return to the voltage indication.

CAUTION

Do not press and hold the ON/OFF button, this may turn the UPS OFF and the load equipment will shut down.

Figure 8. Battery Level Flash



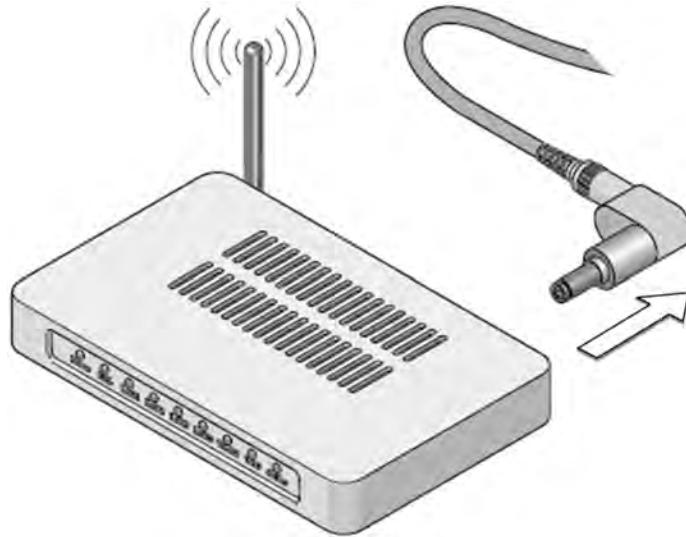
	Slow blinking LED
	Fast blinking LED

2.4 Output Voltage Setup

CAUTION

Before entering voltage setup, ensure that the protected equipment is disconnected from the UPS. The UPS Output can be set to 9V, 12, 15V or 19V. Check the load equipment voltage rating prior to selecting the UPS output voltage.

Figure 9. Disconnect the Load Equipment



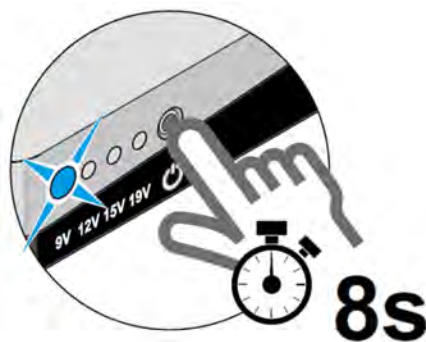
To enter the UPS output voltage setup mode :

- Press and hold the ON/Off button for eight seconds.

! IMPORTANT

The LED's and UPS will briefly shut down during the process , press and hold the ON/OFF button until eight seconds have passed. When LED's start slowly flashing, release the button.

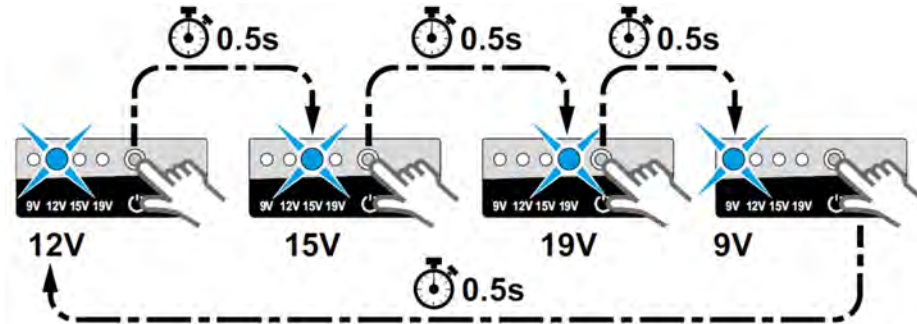
Figure 10. Enter Output Voltage Setup



Output Voltage Setup

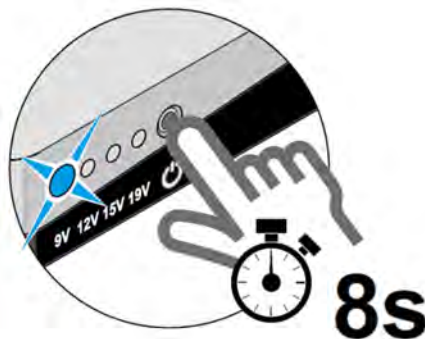
- Press and hold the ON/OFF button for half a second to scroll to the next voltage option see [Figure 11](#). Note that the voltage is not active until the selection is confirmed.

Figure 11. Voltage Selection



- Once the desired output voltage LED is illuminated, press and hold the ON/OFF button for eight seconds to confirm the choice. The LED will stop blinking and steady itself. The DC output is now delivering the new voltage.

Figure 12. Confirm Output Voltage Setup



Chapter 3 Troubleshooting and Maintenance

3.1 Troubleshooting

The Eaton Tripp Lite Series 36W system has an visual alarm feature to alert you of potential problems. When the alarm is activated, the LED's will illuminate according to a particular condition.

Table 1. UPS Alarm Indications

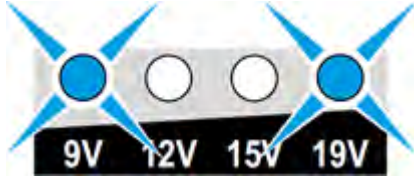


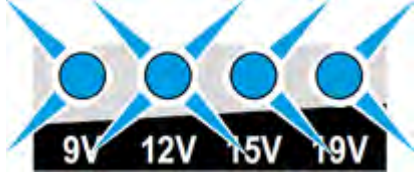
LED blinking code	Situation description
	<p>Abnormal situation (OCP) Over Current Protection. If situation remains the UPS enters Auto Recovery Mode to protect the equipment. UPS automatically returns to normal state once situation is back to normal.</p>
	<p>Abnormal situation (OTP). Over Temperature Protection (NTC temperature). If situation remains the UPS enters Auto Recovery Mode to protect the equipment. UPS automatically returns to normal state once situation is back to normal.</p>
	<p>Abnormal situation (OVP) Over Voltage Protection. If situation remains the UPS enters Auto Recovery Mode to protect the equipment. UPS automatically returns to normal state once situation is back to normal.</p>
	<p>Internal failure. Keeps blinking for 20 seconds then enters shutdown mode. The unit needs replacement. Contact your customer service.</p>

Table 2. Troubleshooting

Problem	Possible Cause	Action
All of the UPS LED's are turned Off	The UPS is turned OFF	Press the ON/OFF button for three seconds Verify that the UPS is connected to a valid power source and press the ON/OFF button for three seconds. If the problem persists contact Eaton support.
UPS does not start	Battery Voltage is too low	
	The power cord is disconnected from the UPS or the wall outlet	
One LED remains OFF when UPS is fully charged, and battery level displayed	The LED is defective	Contact Eaton support.
The UPS does not charge the battery	Mains input power is not being delivered to UPS or batteries may be defective	Verify that the UPS is connected to a valid power source. Check the UPS input cord connection at the wall outlet and at the back of the UPS If the problem persists contact Eaton support.
The load is not powered	The power required from the load equipment is too high. The UPS has shut down due to over temperature.	Remove or reduce the load equipment and reset the UPS. Power the UPS OFF and let the unit cool down. Wait several minutes and restart the UPS. If the problem persists contact Eaton support.
The UPS is frozen and the ON/OFF button is ineffective	UPS is locked	Disconnect the load equipment, turn the UPS OFF and unplug it from mains. Reconnect the UPS and turn it back ON. Press the ON/OFF button for 15 seconds from the OFF state (unplugged) to reset the UPS to factory settings. Turn the UPS back ON. If the problem persists contact Eaton support.

3.2 Equipment Care

It is recommended to operate the equipment at an ambient temperature of 25°C to 77°F for full battery life.

Charge the UPS after initial setup and if possible, perform two or three discharging and recharging cycles.

3.3 Recycling The Used Equipment

Contact your local recycling or hazardous waste center for information on proper disposal of the used equipment.



RISK OF ELECTRIC SHOCK - Observe the warning associated with the risk of electric shock symbol.



This symbol indicates that you should not discard the UPS or the UPS batteries in the trash. This product contains sealed, Lithium-Ion batteries and must be disposed of properly. For more information, contact your local recycling/reuse or hazardous waste center.



This symbol indicates that you should not discard waste electrical or electronic equipment (WEEE) in the trash. For proper disposal, contact your local recycling/reuse or hazardous waste center.

3.4 Model Specifications

Table 3. Specifications

Technical Specifications	BC36ML
AC input voltage	100-240V AC
AC input current	NEMA 5-15P
Input frequency	50/60Hz
Output voltage / Amps	9V/3A 12V/3A 15V/2,4A 19V/1.89A
Output connection barrel adaptors	5.5 x 2.5 5.5 x 2.1 4.75 x 1.7 3.5 x 1.35
Power rating	36 watts
Battery type	Li-Ion x2 (ICR18650)* Cell weight: 45g Max
Battery capacity	3.7 V/ 2200mAh quantity two
Dimensions (W x H x D)	95.5 x 30 x 136 mm
Weight	.4 kg
Operating temperature	0–35 °C
Certifications	UL 62368-1, TUVus, FCC Class B
Warranty	Two years



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